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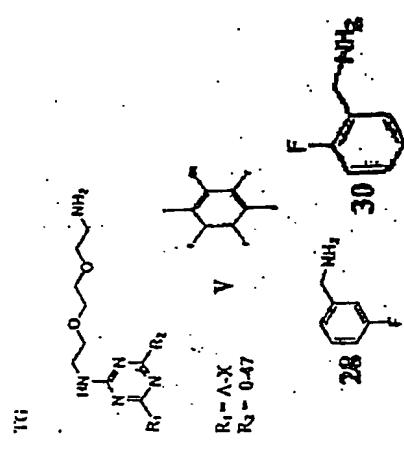
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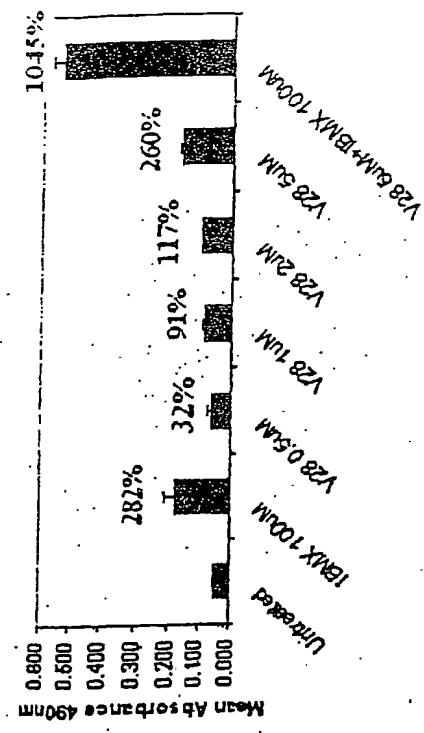
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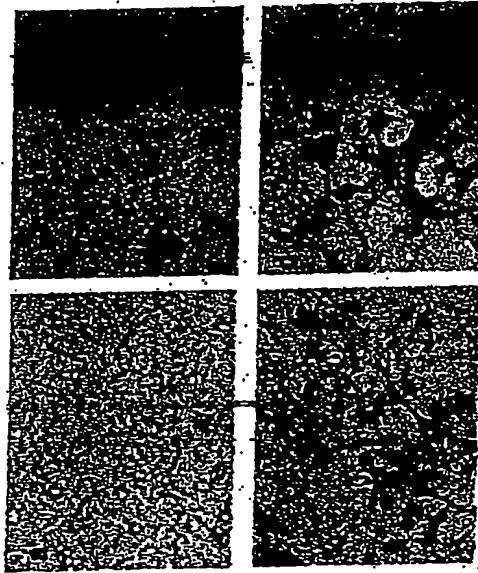
A



D



B



C

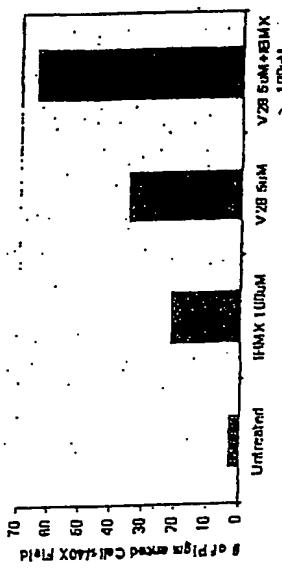
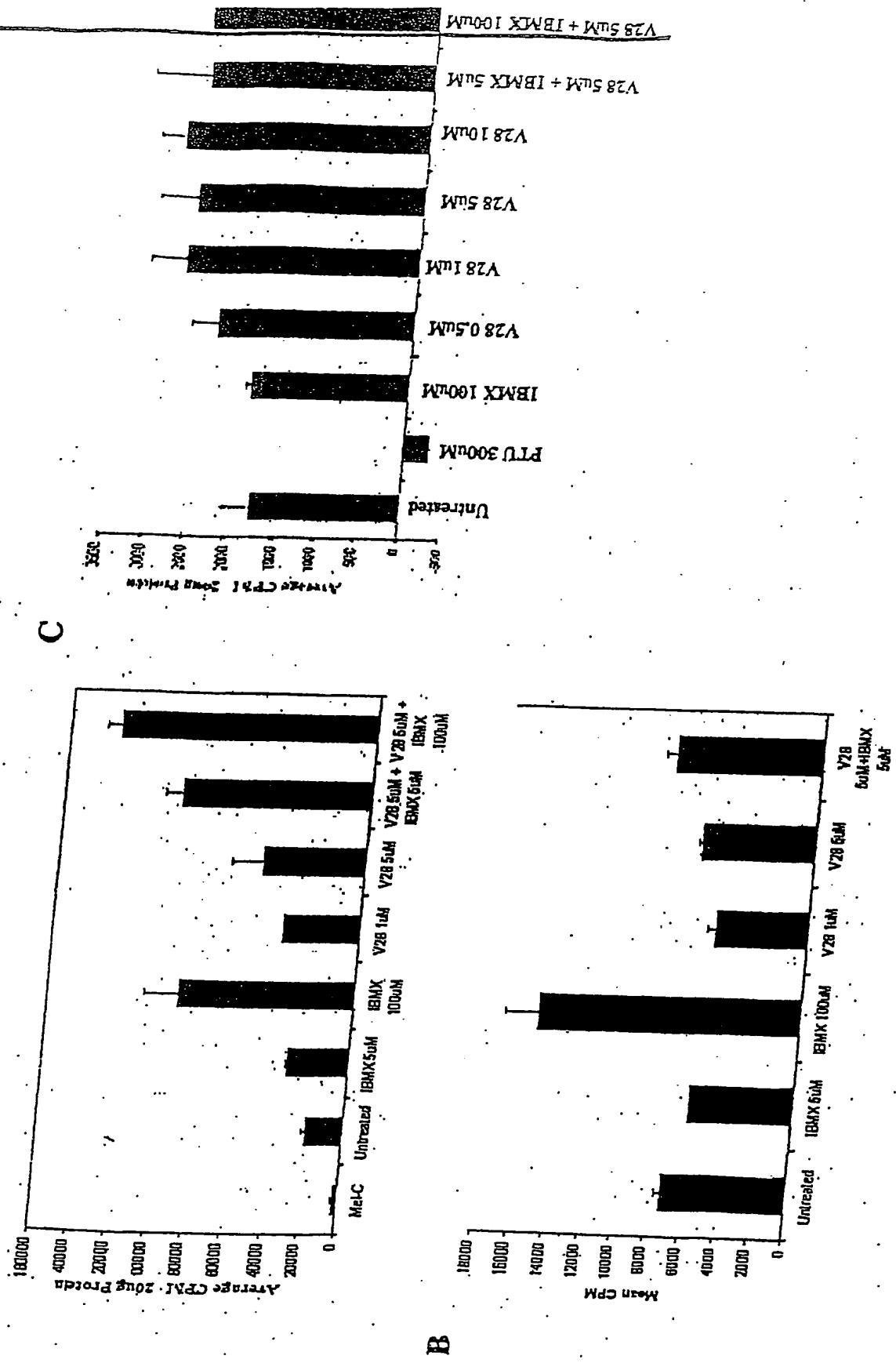


Fig. 1

Fig. 2



Scheme 1. Synthesis of the library compounds.

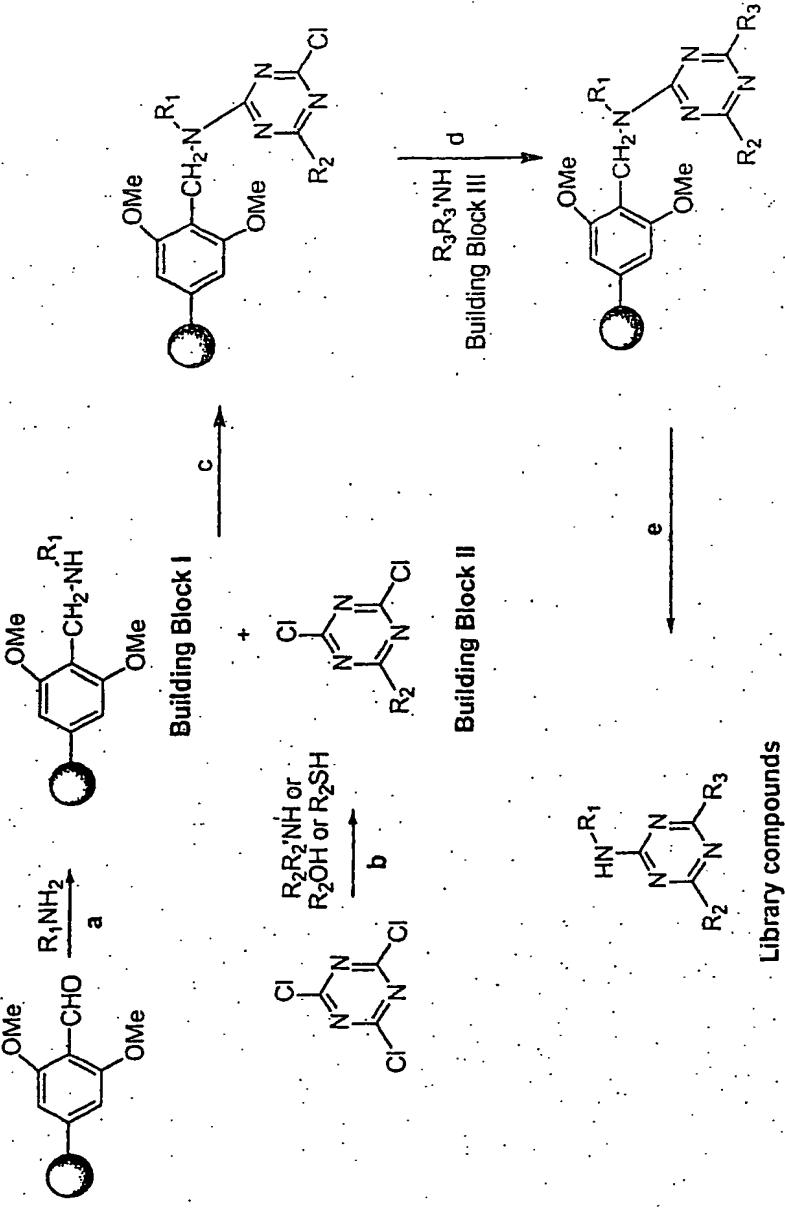


Fig. 3

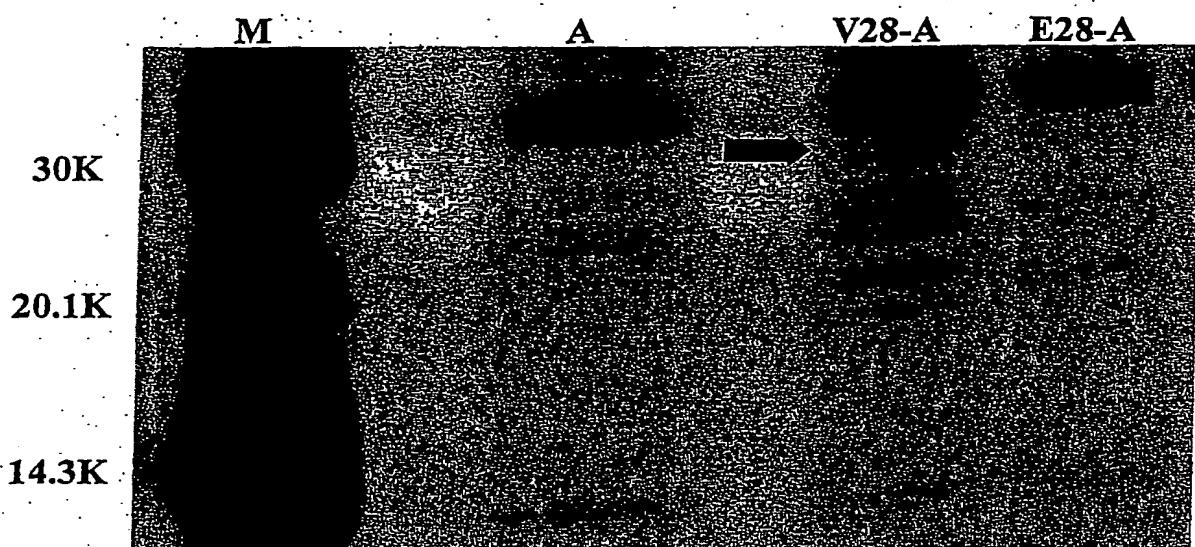


Fig. 4

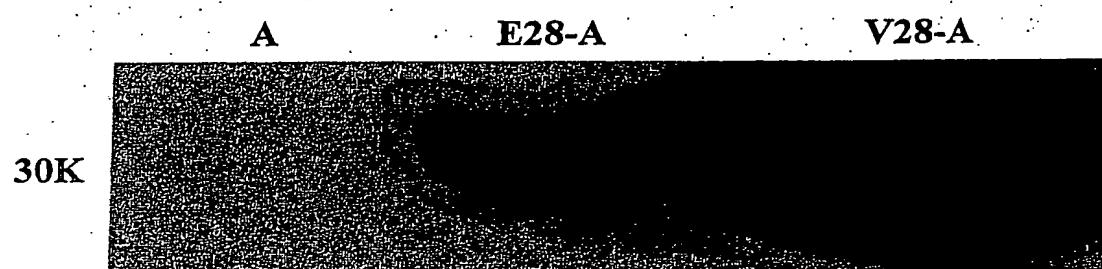
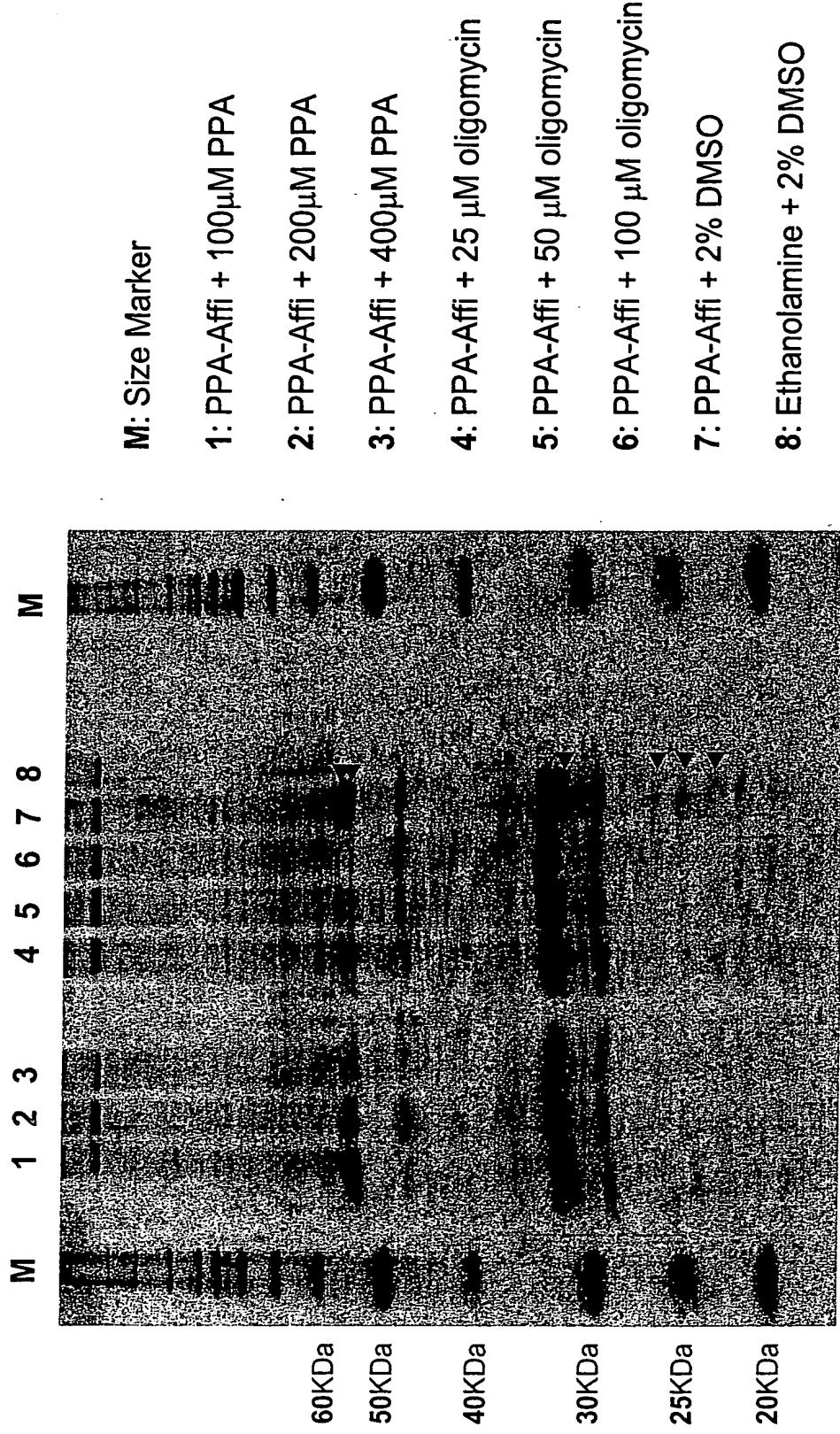


Fig. 5

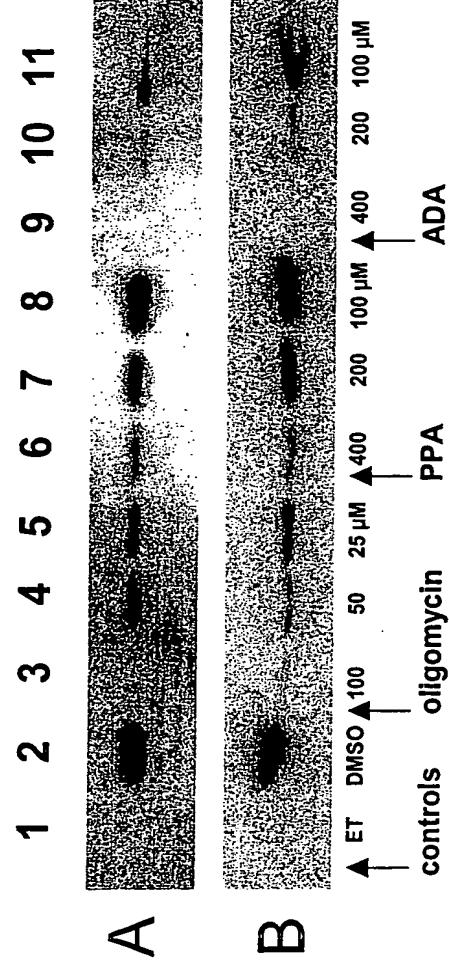
Oligomycin can inhibit binding of ATPase subunits to PPA-affinity matrix



- α, β , and γ subunit, Mitochondrial H⁺-transporting F₁F₀-ATPase (*Mus musculus*)

Fig. 6

Affinity chromatography: Competition

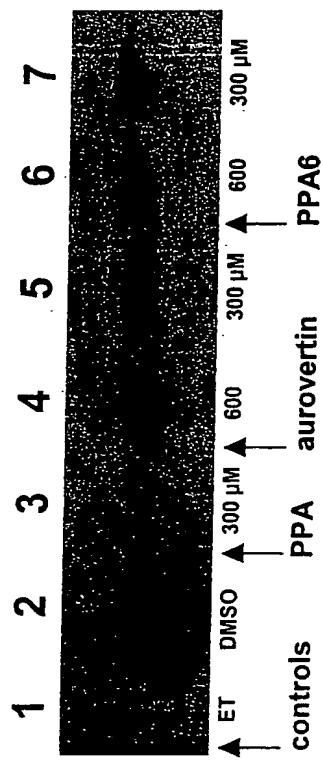


Primary Ab: A:anti-F₁-ATPase β subunit antibody (1:2,500, 1h)
B:anti-F₁-ATPase α subunit antibody (1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

- 1: Ethanolamine + 2% DMSO
- 2: PPA-Affi + 2% DMSO
- 3: PPA-Affi + 100 μ M oligomycin
- 4: PPA-Affi + 50 μ M oligomycin
- 5: PPA-Affi + 25 μ M oligomycin
- 6: PPA-Affi + 400 μ M PPA
- 7: PPA-Affi + 200 μ M PPA
- 8: PPA-Affi + 100 μ M PPA
- 9: PPA-Affi + 400 μ M ADA
- 10: PPA-Affi + 200 μ M ADA
- 11: PPA-Affi + 100 μ M ADA

Fig. 7



Primary Ab: anti-F₁-ATPase β subunit antibody
(1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

- 1: Ethanolamine-Affi + 2% DMSO
- 2: PPA-Affi + 2% DMSO
- 3: PPA-Affi + 300 μ M PPA
- 4: PPA-Affi + 600 μ M aurovertin
- 5: PPA-Affi + 300 μ M aurovertin
- 6: PPA-Affi + 600 μ M PPA6
- 7: PPA-Affi + 300 μ M PPA6

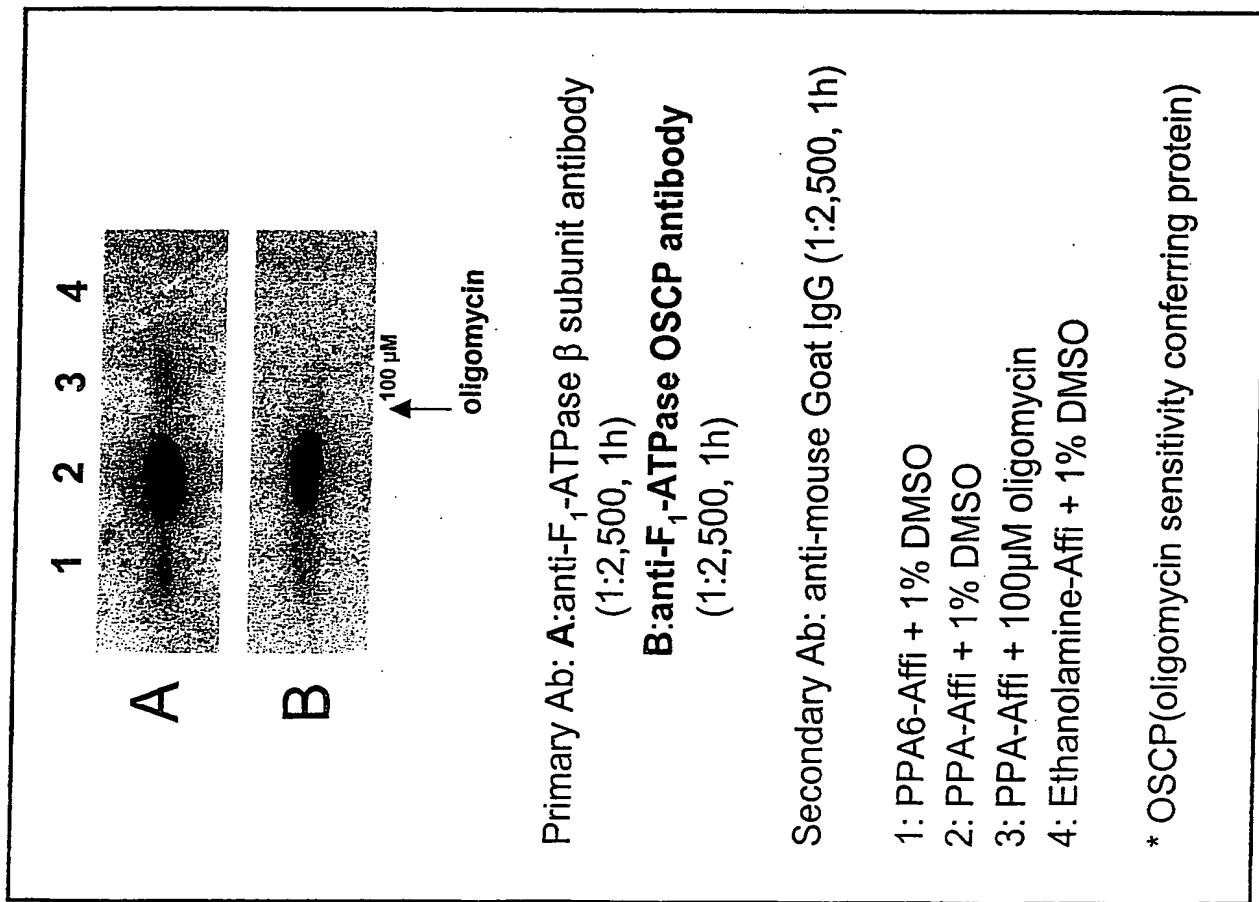


Fig. 9

1 2 3 4



Primary Ab: anti-F₁-ATPase d subunit antibody
(1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

- 1: PPA6-Affi + 1% DMSO
- 2: PPA-Affi + 1% DMSO
- 3: PPA-Affi + 100μM oligomycin
- 4: Ethanolamine-Affi + 1% DMSO

72h drug treatment

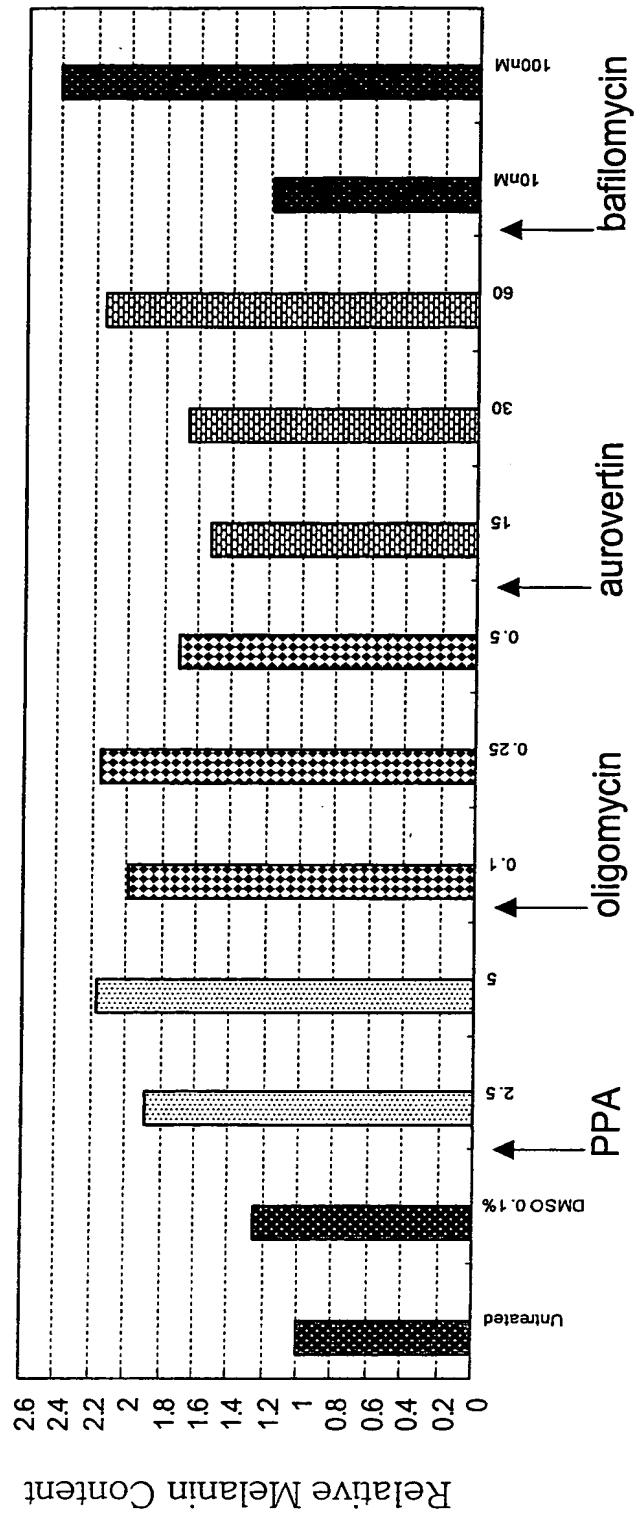


Fig. 11

PPA and oligomycin in Mel-a cells (24h incubation)

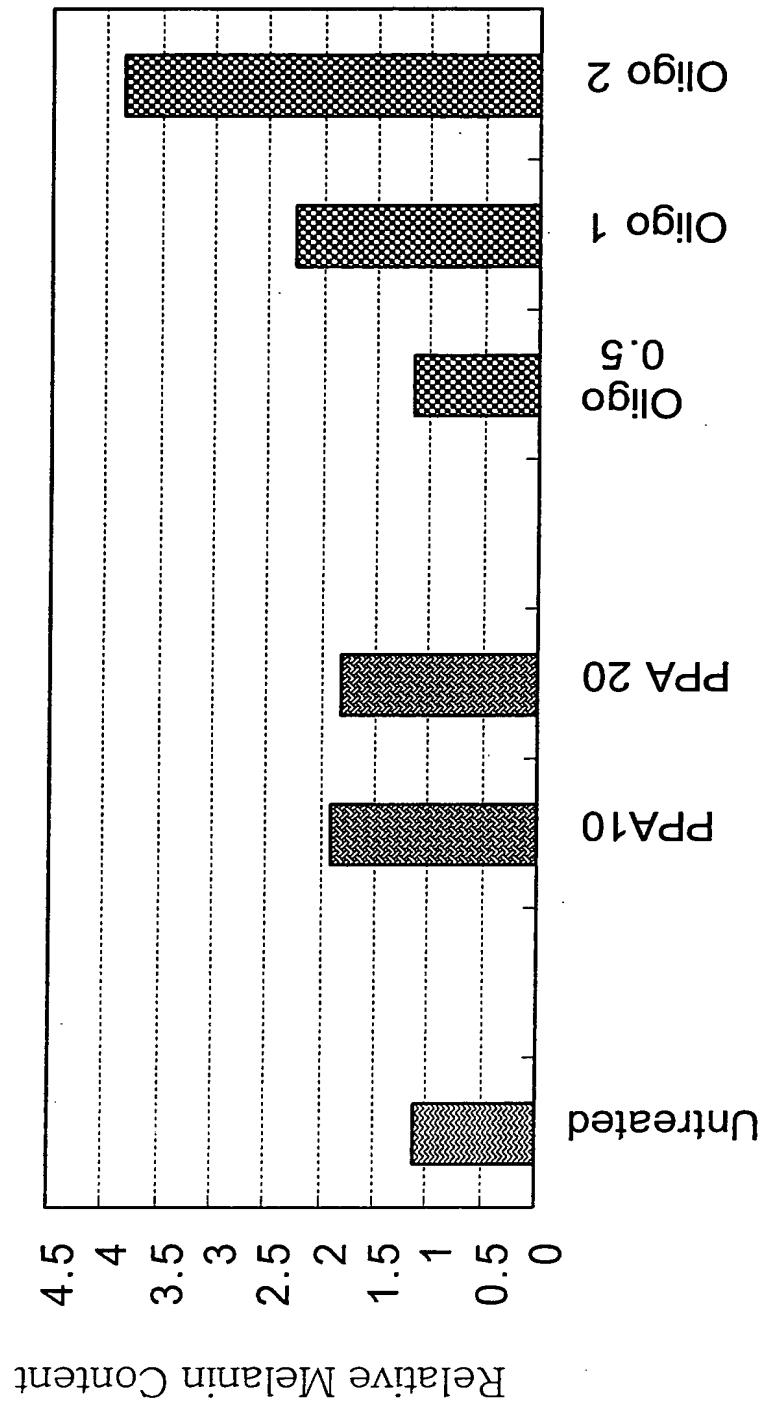


Fig. 12

Aurovertin in Mel-a cells (24h incubation)

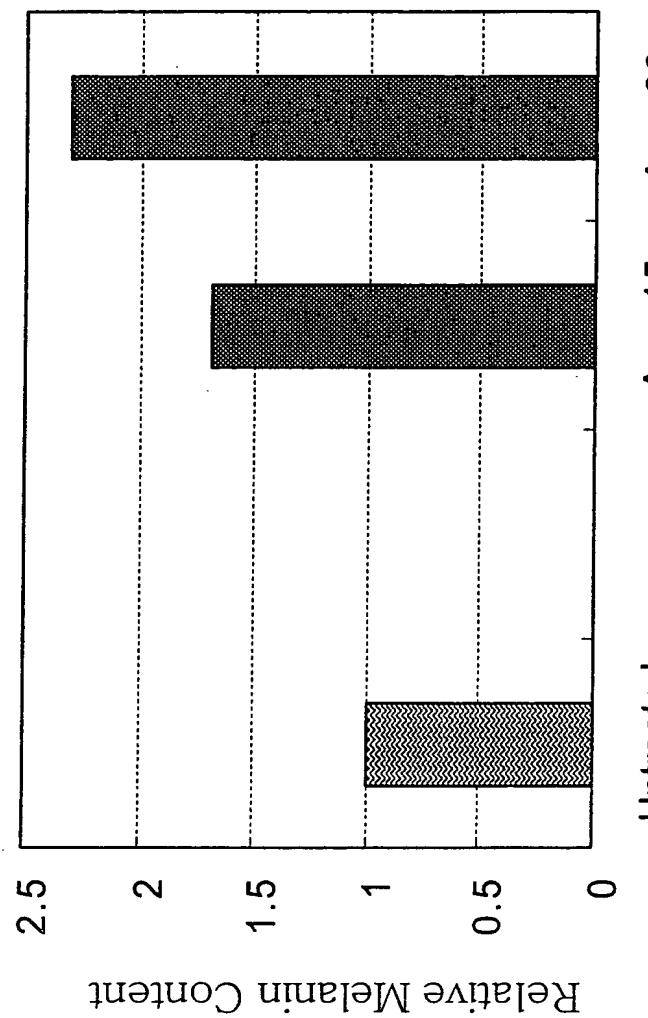


Fig. 13

Structures of compounds PPA & ADA (active pigment promoters) / PPA6 (inactive)

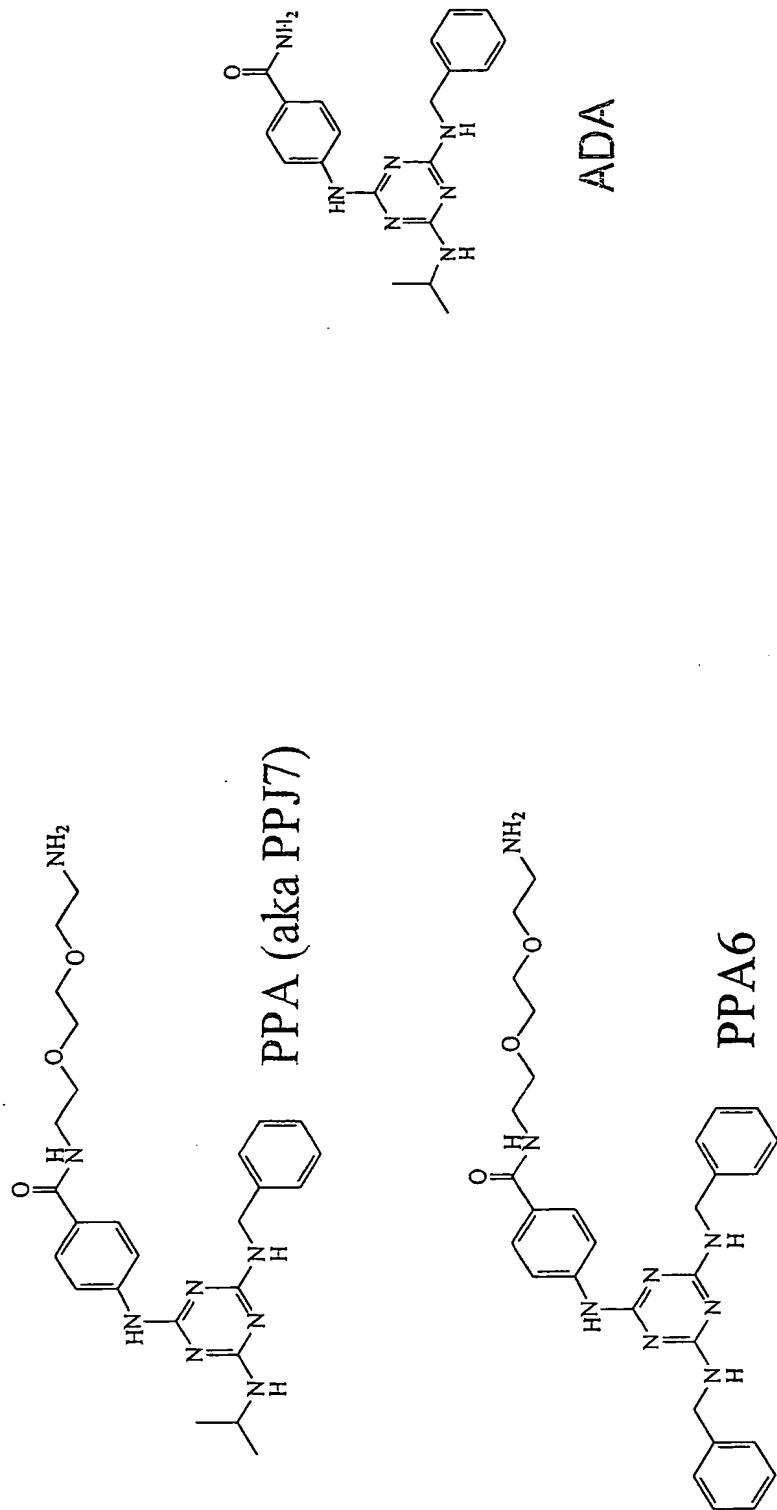


Fig. 14